

## Claims

1-20. (Cancelled)

21. (New) A method for output power dithering for improved transmitter performance, the method comprising:

transmitting a plurality of packets at a first output power;

determining a first error rate associated with the transmission of the plurality of packets at the first output power;

responsive to determining the first error rate, re-transmitting the previously transmitted plurality of packets at a second output power, wherein the second output power is different from the first output power;

determining a second error rate associated with the transmission at the second output power; and

identifying a desired output power based at least in part on a comparison between the first error rate and the second error rate.

22. (New) The method of claim 21 further comprising:

determining if the second error rate is lower than the first error rate;

responsive to a determination that the second error rate is not lower than the first error rate, re-transmitting the plurality of previously transmitted packets at a third output power, wherein the third output power is different from the first output power and the second output power;

determining a third error rate associated with the transmission at the third output power; and

adjusting the third output power if the third error rate is lower than the first error rate.

23. (New) The method of claim 22 further comprising re-transmitting the plurality of previously transmitted packets at the first output power if the third error rate is not lower than the first error rate.

24. (New) The method of claim 21 further comprising:

determining a transmission rate of the plurality of packets; and

responsive to determining that the transmission rate is less than a predetermined value, re-transmitting the plurality of packets at the first output power.

25. (New) The method of claim 21, wherein determining the first error rate comprises measuring a number of failed acknowledgments of transmitted packets.

26. (New) A method for output power dithering for improved transmitter performance, the method comprising:

transmitting a plurality of packets at a first output power;

determining a first error rate associated with the transmission of the plurality of packets at the first output power;

comparing the first error rate to a predetermined error rate value;

responsive to determining that the first error rate is greater than the predetermined error rate value, re-transmitting the plurality of previously transmitted packets at a second output power, wherein the second output power is different from the first output power;

determining a second error rate associated with the transmission at the second output power; and

adjusting the second output power if the second error rate is lower than the first error rate.

27. (New) The method of claim 26, further comprising adjusting the second output power until a desired value of the second error rate is reached.

28. (New) The method of claim 26 further comprising:

determining if the second error rate is not lower than the first error rate;

responsive to determining that the second error rate is not lower than the first error rate, re-transmitting the plurality of previously transmitted packets at a third output power, wherein the third output power is different from the first output power and the second output power;

determining a third error rate associated with the transmission at the third output power; and

adjusting the third output power if the third error rate is lower than the first error rate.

29. (New) The method of claim 28 further comprising:
- determining if the third error rate is not lower than the first error rate; and
  - responsive to determining that the third error rate is not lower than the first error rate, re-transmitting the plurality of previously transmitted packets at the first output power.
30. (New) The of claim 26 further comprising:
- determining a transmission rate of the plurality of packets; and
  - responsive to determining that the transmission rate is less than a predetermined value, re-transmitting the plurality of packets at the first output power.
31. (New) The method of claim 26, wherein determining the first error rate comprises measuring a number of failed acknowledgments of transmitted packets.
32. (New) The method of claim 26, wherein the transmission at the first output power is associated with a variable data rate.
33. (New) The method of claim 32, wherein the first error rate, the second error rate, and the predetermined error rate value are associated with the variable data rate.
34. (New) The method of claim 26, wherein the transmission at the first output power and the second output power is associated with a variable data rate.

35. (New) The method of claim 34, wherein the first error rate, the second error rate, and the predetermined error rate value are associated with the variable data rate.

36. (New) A system for output power dithering for improved transmitter performance, the system comprising:

a transmitter configured to transmit a plurality of packets at a first output power;

and

a processor configured to perform at least the following:

determine a first error rate associated with the transmission of the plurality of packets at the first output power;

cause the transmitter to re-transmit the plurality of previously transmitted packets at a second output power in response to determining the first error rate;

determine a second error rate associated with the transmission at the second output power; and

identify a desired output power based at least in part on a comparison between the first error rate and the second error rate.

37. (New) A system for output power dithering for improved transmitter performance, the system comprising:

means for transmitting a plurality of packets at a first output power;

means for determining a first error rate associated with the transmission of the plurality of packets at the first output power;

means for re-transmitting the plurality of previously transmitted packet at a second output power in response to determining the first error rate, wherein the second output power is different from the first output power;

means for determining a second error rate associated with the transmission at the second output power; and

means for identifying a desired output power based at least in part on a comparison between the first error rate and the second error rate.

38. (New) The system of claim 37, further comprising:

means for re-transmitting the plurality of previously transmitted packets at a third output power if the second error rate is not lower than the first error rate, wherein the third output power is different from the first output power and the second output power;

means for adjusting the third output power if the third error rate is lower than the first error rate; and

means for re-transmitting the plurality of previously transmitted packets at the first output power if the third error rate is not lower than the first error rate.

39. (New) The system of claim 37, wherein the plurality of packets is transmitted in accordance with an IEEE 802.11 protocol.

40. (New) A computer readable storage medium encoded with instructions capable of being executed by a computer to perform output power dithering for improved transmitter performance, the dithering including at least the following:

transmitting a plurality of packets at a first output power;

determining a first error rate associated with the transmission of the plurality of packets at the first output power;

responsive to determining the first error rate, re-transmitting the plurality of previously transmitted packets at a second output power, wherein the second output power is different from the first output power;

determining a second error rate associated with the transmission at the second output power; and

identifying a desired output power based at least in part on a comparison between the first error rate and the second error rate.